

ABSTRACT

A mobile communication system capable of improving the reception characteristic using a small circuit size and low power consumption is provided. The channel vector estimating section 181 estimates channel vectors in a method such as a method in which the section 181 multiplies, according to the multipath timings sent from the multipath timing detecting section, the input signal from the base-station receiving section by a complex conjugate of a known pilot signal to average the input signal (to average the input signal by de-spreading the pilot signal in the case of CDMA). The noise estimating section 182 estimates noise power using received signals and generates a Channel matrix by arranging the estimated channel vectors according to the multipath timings. The weight calculating section 184 calculates a weight matrix using the noise estimation value and the Channel matrix and sets the obtained filter weight vectors to the equalizing filter 185.